

## IN THE CLAIMS:

Please amend claims as follows.

1. (original) A silicon annealed wafer, on the surface of which a COP defect free layer having a thickness of 5  $\mu\text{m}$  or more is formed by annealing a base material wafer, wherein said base material wafer includes:

a COP defect region of a single crystal containing nitrogen at a concentration of less than  $1 \times 10^{14}$  atoms/ $\text{cm}^3$ , wherein said COP defect has a size of 0.1  $\mu\text{m}$  or less in the highest frequency of occurrence and there exist no COP defects having a size of more than 0.2  $\mu\text{m}$ ;

oxygen precipitates formed at a density of  $1 \times 10^4$  counts / $\text{cm}^2$  or more when said base material wafer is subjected to a oxygen precipitate evaluation heat treatment; wherein

the ratio of the maximum to the minimum of BMD (oxygen precipitate) density is 3 or less in the radial direction of said base material wafer.

2. (original) A silicon annealed wafer according to Claim 1, wherein the oxygen concentration of said base material wafer is  $11 \times 10^{17} - 17 \times 10^{17}$  atoms/ $\text{cm}^3$  (ASTM F-121, 1979).

3. (original) A silicon annealed wafer according to Claim 1, wherein said COP defect occurrence region extends over an 80% or more surface area of said base material wafer in the radial direction.

4. (currently amended) A silicon annealed wafer according to ~~one of Claims 1 to 3~~ Claim 1, wherein the annealing process is performed at 1100°C – 1250°C for 1 – 4 hours in a hydrogen gas, argon gas, helium gas or a mixed gas thereof.

5. (original) A silicon annealed wafer, on the surface of which a COP defect free layer having a thickness of 5  $\mu\text{m}$  or more is formed by annealing a base material wafer, wherein

said base material wafer contains nitrogen at a concentration of less than  $1 \times 10^{14}$  atoms/cm<sup>3</sup>, and

said base material wafer is grown by the Czochralski method under the following conditions:

the temperature gradient ratio  $G_c/G_e$  is 1.0 – 1.5 where  $G_c$  (°C/mm) and  $G_e$  (°C/mm) are averaged temperature gradients in the axial direction of pulling at a temperature range from 1370°C to 1310°C for the center and the outer periphery of said base material wafer, respectively;

the cooling time from 1200°C to 1000°C is within 50 min; and

the cooling time from 1030°C to 920°C is within 30 min.

6. (original) A silicon annealed wafer according to Claim 5, wherein the oxygen concentration of said base material wafer is  $11 \times 10^{17} - 17 \times 10^{17}$  atoms/cm<sup>3</sup> (ASTM F-121, 1979).

7. (currently amended) A silicon annealed wafer according to Claim 5 [[or 6]], wherein the annealing process is performed at 1100°C – 1250°C for 1 – 4 hours in a hydrogen gas, argon gas, helium gas or a mixed gas thereof.

8. (original) A silicon epitaxial wafer produced by forming an epitaxial layer on the surface of a base material wafer,

wherein said base material wafer includes:

a COP defect occurrence region of a single crystal containing nitrogen at a concentration of less than  $1 \times 10^{14}$  atoms/cm<sup>3</sup>, wherein said COP defect has a size of 0.1 μm or less in the highest frequency of occurrence and there exist no COP defects having a size of more than 0.2 μm;

oxygen precipitates formed at a density of  $1 \times 10^4$  counts /cm<sup>2</sup> by applying a oxygen precipitate evaluation heat treatment; wherein

the ratio of the maximum to the minimum of BMD (oxygen precipitate) density is 3 or less in the radial direction of said base material wafer.

9. (original) A silicon epitaxial wafer according to Claim 8, wherein the oxygen concentration of said base material wafer is  $11 \times 10^{17} - 17 \times 10^{17}$  atoms/cm<sup>3</sup> (ASTM F-121, 1979).

10. (original) A silicon epitaxial wafer according to Claim 8, wherein said COP defect occurrence region extends over an 80% or more surface area of said base material wafer in the radial direction.

11. (original) A silicon epitaxial wafer produced by forming an epitaxial layer on the surface of a base material wafer,

wherein said base material wafer contains nitrogen at a concentration of less than  $1 \times 10^{14}$  atoms/cm<sup>3</sup>, and

said base material wafer is grown by the Czochralski method under the following conditions:

the temperature gradient ratio  $G_c/G_e$  is 1.0 – 1.5 where  $G_c$  (°C/mm) and  $G_e$  (°C/mm) are averaged temperature gradients in the axial direction of pulling at a temperature range from 1370°C to 1310°C for the center and the outer periphery of said base material wafer, respectively;

the cooling time from 1200°C to 1000°C is within 50 min; and

the cooling time from 1030°C to 920°C is within 30 min.

12. (original) A silicon epitaxial wafer according to Claim 11, wherein the oxygen concentration of said base material wafer is  $11 \times 10^{17} - 17 \times 10^{17}$  atoms/cm<sup>3</sup> (ASTM F-121, 1979).

13. (new) A silicon annealed wafer according to Claim 2, wherein the annealing process is performed at 1100°C – 1250°C for 1 – 4 hours in a hydrogen gas, argon gas, helium gas or a mixed gas thereof.

14. (new) A silicon annealed wafer according to Claim 3, wherein the annealing process is performed at 1100°C – 1250°C for 1 – 4 hours in a hydrogen gas, argon gas, helium gas or a mixed gas thereof.

15. (new) A silicon annealed wafer according to Claim 6, wherein the annealing process is performed at 1100°C – 1250°C for 1 – 4 hours in a hydrogen gas, argon gas, helium gas or a mixed gas thereof.